

# General

Sure! Here's how to fill in the gaps and answer the questions based on the provided information:

## ### SECTION-A

1. An archer stretches her bow while taking aim at the target. She then releases the arrow, which begins to move towards the target. Based on this information, fill up the gaps in the following statements using the following terms:

- Muscular, contact, non-contact, gravity, friction, shape, attraction

a. To stretch the bow, the archer applies a force that causes a change in its **shape**.

b. The force applied by the archer to stretch the bow is an example of **muscular** force.

c. The type of force responsible for a change in the state of motion of the arrow is an example of a **contact** force.

d. The type of force responsible for a change in the state of motion of the arrow is an example of a **non-contact** force.

e. While the arrow moves towards its target, the forces acting on it are due to **gravity** and that due to **friction**.

2. Give one-word answers:

a. **Winnowing** (Separation of grains from the chaff).

b. **Petroleum** (Black gold).

c. **Coal formation** (Slow process of conversion of dead vegetation into coal).

d. **Fractionation** (Process of separating the various constituents/ fraction of petroleum).

e. **Organelle** (Part of the cell that contains organelles).

3. Tick true/false against the following statements:

a. **True** (Coke is almost pure form of carbon).

- b. **\*\*False\*\*** (Fuel efficiency is not expressed in units of kg/ kilojoules; it is generally expressed in units like km/l or L/100km).
- c. **\*\*True\*\*** (Increased percentage of CO<sub>2</sub> in air has been linked to global warming).
- d. **\*\*False\*\*** (Force has both magnitude and direction; it is not magnitude only).
- e. **\*\*True\*\*** (North Pole of a magnet attracts the South Pole of another magnet).

Feel free to ask if you need further elaboration or help!